

inventors had possession of the claimed invention at the time the application was filed. Applicants respectfully believe that the amendments to Claims 6, and 8 adequately respond to the rejection. Applicants respectfully request withdrawal of the § 112, first paragraph rejection of Claims 6, 8, and 9.

Further on the merits, the previous Office Action,, dated May 22, 2002, rejected Claim 6 under 35 U.S.C. § 102(b) as being anticipated by Meyer et al. (WO 8503807; hereinafter "Meyer"). The Office Action also rejected Claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Meyer in view of Wondrak et al. (U.S. Patent No. 5,578,859; hereinafter "Wondrak"). Applicants submit that the pending claims are allowable over the cited art for at least the following reasons.

Applicants' Claim 6 recites: "[a] semiconductor device comprising a semiconductor body having a first region of a first conductivity type and, adjacent thereto, a second region of the second, opposite, conductivity type a third region of the first conductivity type, which is adjacent the second region and separated from the first region by the second region, and a fourth region of the first conductivity type which is separated from the second region by the third region and which has a higher doping concentration than the third region, the first, the second and the fourth region being provided with a terminal, wherein the third

region is provided with a protection zone of the first conductivity type having a higher doping concentration than the third region, which protection zone is separated from the second region by the third region and is situated near the fourth region and around the fourth region, and separated from said fourth region by an intermediate, comparatively high-impedance region, wherein the third region and the fourth region form, respectively, a drift region and a drain region of a Lateral DMOS transistor."

Meyer fails to recite or suggest a protection zone separated from the second region by the third region and is situated near the fourth region and around the fourth region. Rather, as shown by Fig. 3 of Meyer, zones 20 extend around not only the fourth region 18, but also around 1st and 2nd regions 13 and 16, as well. Consequently, Meyer fails to recite or suggest a high-impedance region which forms a resistance in the current path situated between the protection zone and the contact zone. In addition, Meyer's device increases the size of the overall device, since the protection zone must be formed around the entire device. Consequently, Claim 6 is believed patentable over Meyer for at least these reasons.

Claim 8 recites a semiconductor device substantially corresponding to Claim 6 and is believed patentable for at least the same reasons. In addition, withdrawal of the § 103 rejection

of Claim 8 is respectfully requested, as it is now believed moot in light of the above amendments and remarks.

In view of the foregoing, it is respectfully submitted that the currently-pending claims clearly define statutory subject matter. Accordingly, allowance of the currently-pending claims is now respectfully submitted to be justified, and favorable consideration is earnestly solicited.

Respectfully submitted,

By 
Aaron Waxler, Reg. No. 48,027
(914) 333-9608
November 11, 2002

FAX RECEIVED

NOV 11 2002

TECHNOLOGY CENTER 2800

APPENDIX A

MARKED-UP CLAIMS

6. (Four Times Amended) A semiconductor device comprising a semiconductor body having a first region of a first conductivity type and, adjacent thereto, a second region of the second, opposite, conductivity type, ~~wherein the first region electrically insulates the second region from a substrate of the second conductivity type,~~ a third region of the first conductivity type, which is adjacent the second region and separated from the first region by the second region, and a fourth region of the first conductivity type which is separated from the second region by the third region and which has a higher doping concentration than the third region, the first, the second and the fourth region being provided with a terminal, characterized in that ~~wherein~~ the third region is provided with a protection zone of the first conductivity type having a higher doping concentration than the third region, which protection zone is separated from the second region by the third region and is situated near the fourth region and around the fourth region, and separated from said fourth region by an intermediate, comparatively high-impedance region, characterized in that ~~wherein~~ the third region and the fourth region form,

respectively, a drift region and a drain region of a Lateral DMOS transistor.

8. (Four Times Amended) A semiconductor device comprising a semiconductor body having a first region of a first conductivity type and, adjacent thereto, a second region of the second, opposite, conductivity type, ~~wherein the first region electrically insulates the second region from a substrate of the second conductivity type, a third region of the first conductivity type, which is adjacent the second region and separated from the first region by the second region, and a fourth region of the first conductivity type which is separated from the second region by the third region and which has a higher doping concentration than the third region, the first, the second and the fourth region being provided with a terminal, characterized in that~~ wherein the third region is provided with a protection zone of the first conductivity type having a higher doping concentration than the third region, which protection zone is separated from the second region by the third region and is situated near the fourth region and around the fourth region, and separated from said fourth region by an intermediate, comparatively high-impedance region, characterized in that the device is of the RESURF type, wherein the product of the

thickness and the doping concentration of the third region is approximately 10^{12} atoms per cm^2 .